ICT4D
WEEK 1

Meaning of Development

From Social Science Perspective

What are intended to be covered?

- What meaning and connotations are conveyed by the word ‘development’
- Are these meanings fixed?
- Is development a discourse? A social construct?
- Alternative meanings and models of development

Think of these conditions…Do they denote development?

- A small fruit plant, with time, grown into a big tree but doesn't bear any fruit.
- A small child became big strong men and joined gang of Robbers
- A poor community, yet living harmoniously, found gold mines, became rich & resourceful, but excess money bred competition, jealousy, possessive individualism, and disharmony
- A big Dam over a river gave water, electricity, jobs making many people well off, but displaced thousands of poor tribals
- India when colonized got Railways, Telegraph, Ports, Modern Industries, modern education and medical system, and social reforms
- A nation exhausted all its vital resources to grow its GDP manyfold in short time

Meaning of the word ‘Development’

- Dictionary meaning
  - an event constituting a new stage in a changing situation.
  - the process in which someone or something grows or changes and becomes more advanced (Cambridge dictionary)
  - Change from an existing to desired state

- Synonyms
  - Evolution, growth, progress, maturing, advancement, moving forward, expansion, spread, blossoming, flourishment

Growth vs Development

- Growth:
  - the process of increasing in size.
  - An increase, as in size, number, value, or strength; extension or expansion.
- Growth is quantitative and value neutral. It may have a positive or a negative sign
- Development denotes a qualitative change which is always value positive- Development is value judgemental concept
- Development indicates a positive growth which is considered qualitatively good
- Examples:
  - **Growth**: population increasing by 10 %; **Development**: population becoming more healthy, literate, and resourceful
  - **Growth**: child growing to adulthood with increased size, weight; **Development**: the grown up man becomes well groomed good human being

Development: what, for whom, and how?

- **Development for whom? Referent point?**
- **Nation**?
  - faster growth of national resources(GDP), formidable security, stable Government, more relative powers and capabilities, etc.
- **Civil Society/communities/people?**
  - Civil liberties and rights, socio-economic welfare, material prosperity, harmony, social solidarity, etc.
- **Individual?**
  - Adequate material resources, social well-being, civil liberties & rights, capabilities and choices, etc.
- **who has the power to do Development and to whom?**
  - Developed vs. Underdeveloped
  - External vs self-Development
- **How?**
  - Methods, mechanisms, and pathways of development

Development as Discourse

Development as 'Discourse'

- **Discourse**:
  - Special terminology and language used to create identities, define structures, and explain behaviour in a particular socio-cultural context or domain.
  - Social construction of reality, assigning meanings to idea/concept
  - How identity, structure, and behaviour are normalized and institutionalized
  - **Examples**: Modernity, Nationalism, 3rd World, Liberalisation, masculinity/femininity, Communal, 'Cool', 'Chill'

- **Contemporary meaning of Development**
  - Material prosperity by fast growth in resources(income/wealth), industrialisation, scientific & technological innovations, automation, etc.
  - Closely linked to idea of **modernisation-** modern political values & norms(democracy, Justice, Liberty, Equality, Rights), modern life style (individualistic, materialistic, scientific, reasoned/rational)
- How and by whom the contemporary discourse of Development was created?

Discourse of Development: Genealogy

- In ancient period, philosophers considered human progress cyclical
  - **Aristotle-** virtuous conditions degenerate over time, then regenerate
- Enlightenment period(18th century Europe)- progress in human civilization **linear**, may be **continuous** with scientific evolution- liberal conception of development
- **Hegel**: Continuous Progress in human civilization through development of ideas- ***thesis- antithesis- synthesis***
- **Marx**: development is continuous progression in mode of production through class struggle
- 1949: **Truman's** famous address gave contemporary discourse of development
  - Developed vs underdeveloped
  - Development as faster production, and material well-being by scientific, technocratic methods by experts and by employing capital
  - Development is Modernization
  - Universal concept, mechanisms across all socio-cultural contexts

Political Dimension: Development and Modernisation theory

- During 1950s-70s, the Western World led by USA created the discourse of Development and modernization

- **'Developmentalism**' - conceptual paradigm
  - there is a fixed path of development & modernization as traversed by western nations; by following the same path, poor 3rd world nations would also become developed.
- **Development**:
  - Rapid industrialization, free trade, leverage market, fast GDP growth, economic prosperity, material comforts, etc.
- **Modernization:**
  - Liberal Democracy, modern institutions, modern education, health, transport, communication system; modern political values- Liberty, Rights, Equality, pluralism, secularism, reason/rationality, scientific temper, individual autonomy, etc.
- In western discourse development is universal, objective, scientific, technocratic, progressive, and politically neutral

Challenges to Developmentalism : Dependency Theory

- **Dependency theory** criticized the dominant model of development as 'Eurocentric', furthering the capitalist interests of the 'West'.
- **Core vs Periphery**
  - Global economic system- **core-** developed nations of 'West'; **periphery**: poor nations of 3rd world
- **Metropolitan vs satellite**
  - Developed region of poor 3rd world nations act as satellite of Metropolitan centers in West
  - Metro- satellite pattern in underdeveloped nation
- '**Development of Underdevelopment**'
- In this view ideology, interest, and politics permeate the discourse of development

Human Development

Human Development-1/3

- Development is all about enlarging people's choices in order to lead long, healthy lives with dignity (**Dr Mahbub-ul-Haq**)
- Development is increasing freedom through social and political institutions and processes (**Prof Amartya Sen**)
- Freedom is capabilities to do desired things and achieve well-being
- Human Development:
  - Resources & capabilities to make choices to have meaningful life
  - Process of improving human life, making it more meaningful- human flourishment
  - **By** (as given by Economist **Michael Todaro**)
    - 1. increase standard of living ;
    - 2. Increasing range of choices- increase freedom;
    - 3. Create conditions conducive to ensure self-esteem and dignity of individuals

Human Development-2/3

- **3 dimensions**: access to resources, health and education
- **4 Pillars**: equity, sustainability, productivity and empowerment
- **4 Approach**: Income approach; Welfare approach; Minimum needs approach; Capabilities approach

Human Development-3/3

- **Negative and Positive conceptions of human Development**
  - Negative: modern, western, liberal conception
    - Equality of opportunity, Rights, Liberty, material resources, physical comforts/pleasure
    - Negative freedom, Negative Rights
  - Positive: ancient, normative, philosophical
    - Flourishment of human life, happiness, self-autonomy, self-realization, moral perfection
    - Positive freedom, positive rights

- **Human Development Index(HDI):**
  - By UNDP, composite index between 0-1 to denote human Development in a country
  - Proxy indicators
    - Access to resources(living standard)- per capita GNP
    - Long and healthy life- life expectancy at birth
    - being knowledgeable- mean of years of schooling for adults aged 25 years and expected years of schooling for children of school entering age

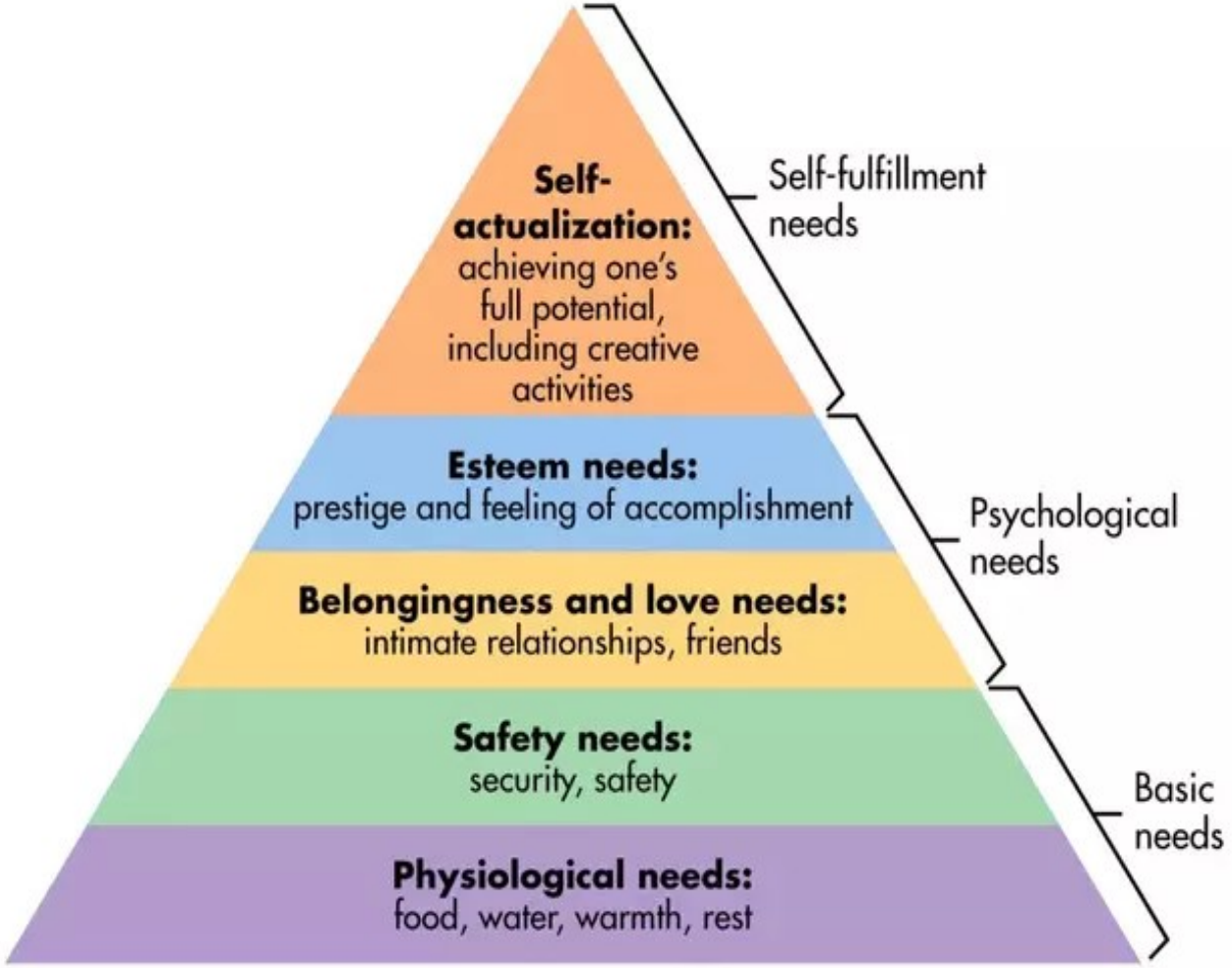
Limitations of HDI:

- Measures attainments Not shortfall in human development
  - **Human poverty index**: The probability of not surviving till the age of 40, the adult illiteracy rate, the number of people who do not have access to clean water, the number of small children who are underweight, etc.

- Does not say anything about the **distribution**
  - Ex: per capita GNP grew by 10 % but median per capita income reduced by 10%, persons below poverty line increased by 10 %, how?

- Does not reflect on inequalities, poverty, human security, empowerment, and positive development

Psychological dimension : Maslow's hierarchy of needs



Theory of human developmental psychology

Once a lower level need is met, more or less, one start to feel higher level need

Human develops by rising on the need hierarchy

Flourished, fulfilled life is one which could meet the Self-actualization need

Alternate Conceptions of Development

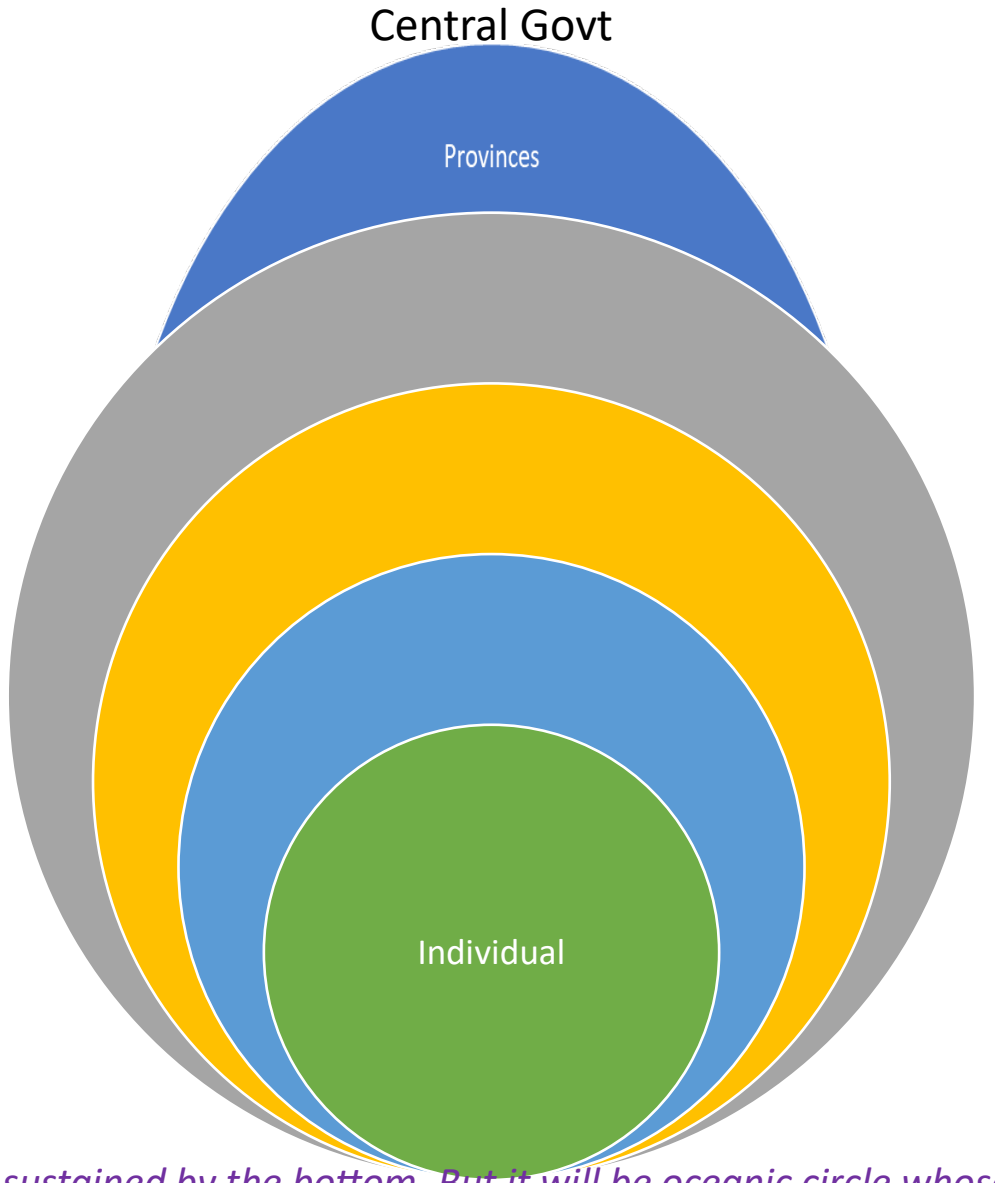
Gandhian model

Marx's model

Gandhian Notion of Development

- **Development is Freedom- Swaraj**
- **For individual** it denoted self-mastery, self-control, self-restrain, self-realization, moral goodness & perfectibility
- **For Community** it meant self-governing autonomous community life without any formal coercive authority; full rights of civil liberties, and civil disobedience against any unjust actions/law of the state/govt
- **For political economy** it denoted classless economic order, equal honour/dignity for all kinds of labour, self-renunciation(limiting our wants), Trusteeship
- It also meant **freedom from want**, material possession, ego, bondage of so called modern materialistic life- modern large machine, faster transport system, competition/conflict-court/lawyer, modern medical system-doctors, etc.
- **In sum**, it was his vision of an ideal civilisation based on **Non-violence** (अहिंसा), **Truth**, and moral **duty** (Dharma) in contrast to western modern civilisation based on violence/force, material possession, and Rights

Gandhian Oceanic Circles: Community of Communities



"Life will not be a pyramid with the apex sustained by the bottom. But it will be oceanic circle whose centre will be the individual always ready to perish for the village, the latter ready to perish for the circle of villages, till at last the whole becomes one life composed of individuals, never aggressive in their arrogance, but ever humble, sharing the majesty of the oceanic circle of which they are integral units."

Marxian concept of Development

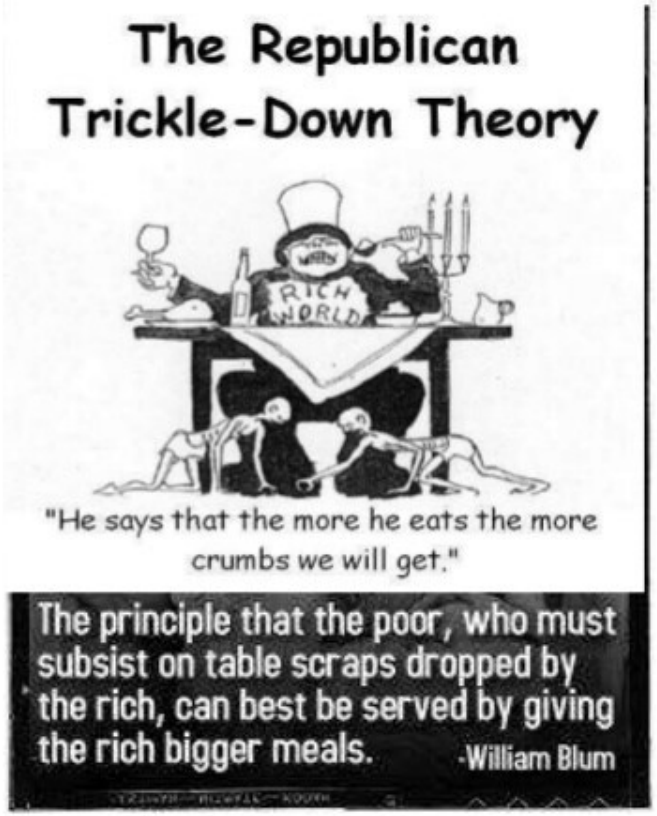
- Development is historical evolution in mode of production through class struggle
- **Primitive** subsistence society--→**master-slav**e society--→ **Feudal** Society(lord-serf)--→ **Capitalist** society(capitalist-labourer)--→ **Socialist** society (Dictatorship of Proletariats') --→ **Communist** Society
- **Communist Society- Final stage of development**
  - Classless, stateless society
  - Development is freedom
  - True freedom is social production in which each individual contribute freely *as per his ability, and get as per one's need* and relate to fellow man as equal
  - Human development is Man working to realise essence of being human, act of self-realization
  - *"it will be possible for me to do one thing today and another tomorrow, to hunt in the morning, fish in the afternoon, rear cattle in the evening, criticize after dinner, doing just that which gives me pleasure without ever becoming a hunter, fisherman, shepherd or critic. This will be the real state of freedom for man from alienation and exploitation"*(Marx)

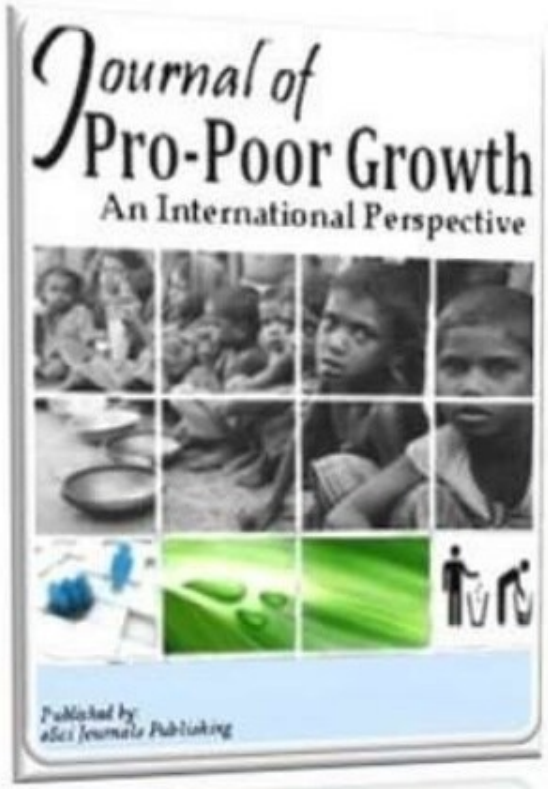
THANKS FOR LISTENING!

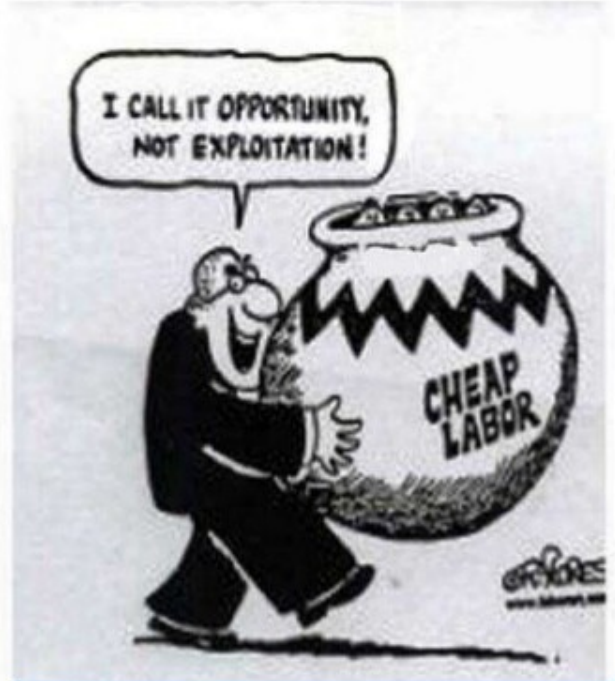
BE SAFE …GOOD WISHES !

Dimensions of development

- Economic
- Social
- Cultural
- Political
- Environmental
- Human



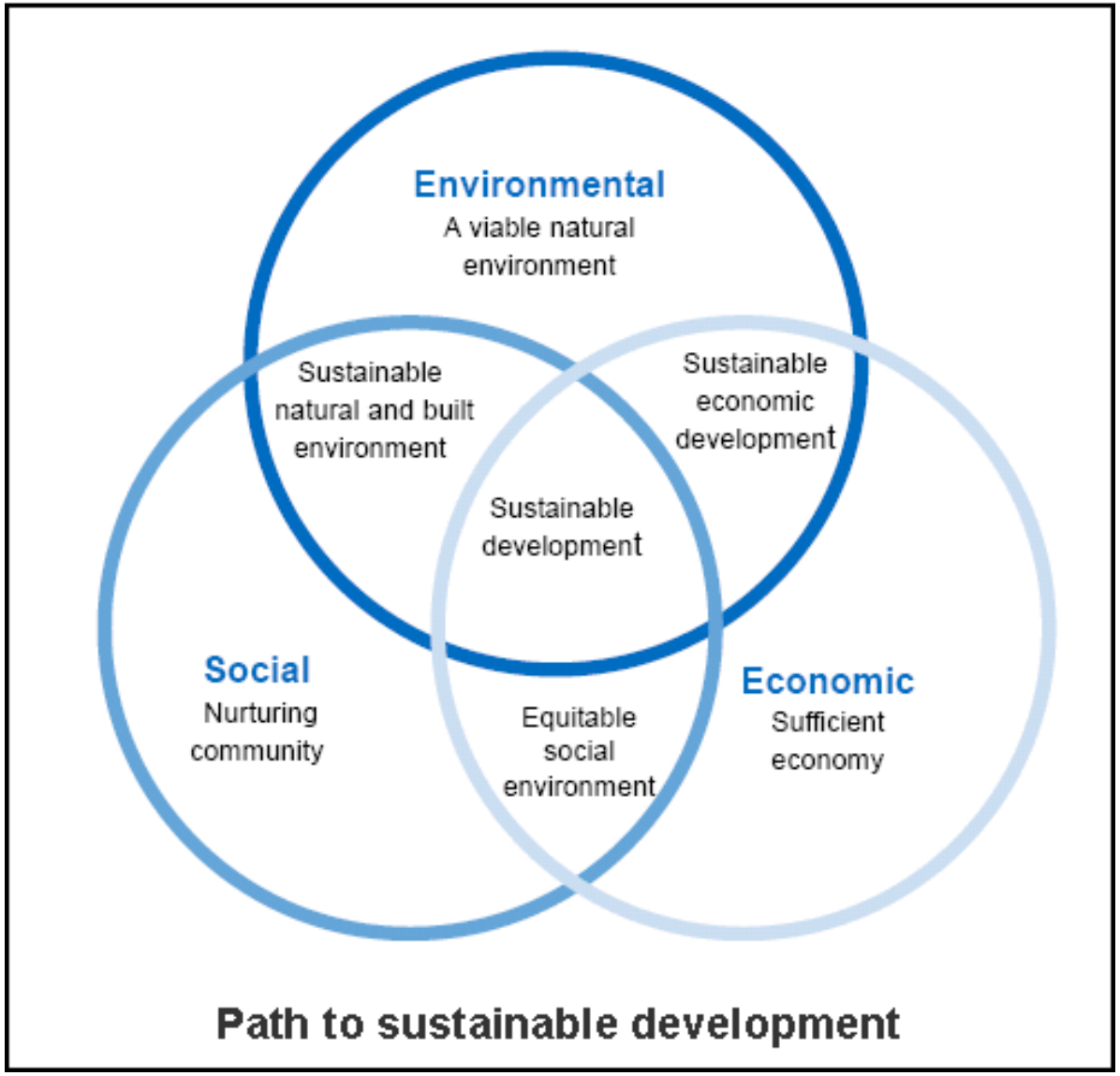




➢ *Low-wage industry-led*

Low-wage labour-intensive export-led

➢ *Agriculture-based*



Path to sustainable development

Approaches to Development

- Income Approach
- Welfare Approach
- Basic Needs Approach
- Rights Based Approach
- Capability Approach

ICT for Development

Session 1 & 2

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What I want to do in 10 sessions

- *Explore existing concepts of development, and study the role of ICTs in this process, and then link ICTs to development goals.*
- *How ICTs offer the global community an unparalleled opportunity to reconsider ways and means of delivering the benefits of development by providing access to knowledge and to services that were earlier limited to the few rich in a society.*
- *Understand what these ICTs are, their different components, elements, and attributes.*
- *Understand their limitations and how these interact with each other and with social, political, legal and technological environments.*
- *Understand emerging trends in global thinking on the purpose of development.*
- *Become familiar with the role that international institutions are playing to promote the use of ICTs in the development process.*

How will it benefit you?

- *Make you sensitive to enormous importance of the work that you are going to do in your career as ICT engineers*
- *Provide you with a holistic view of how ICT touches human lives*
- *Open up your vision to enormous possibilities that lie ahead to leverage technology for greater good of mankind through empowerment & equal opportunity*
- *Inculcate your entrepreneurial skills to look for opportunities in harnessing ICT for development through new use cases*
- *Look beyond the obvious*
- *Showcase your project work in job interviews*

Evaluation

Component	Weightage
Class Participation/Quiz (4)	*10%*
Scheduled Quiz (1)	*20%*
Group Project	*30%*
End Term	*40%*
Total	**100%**

Rules:

- **Surprise Quiz:** *consisting of objective type questions for CP, each of 5 minutes duration.*
- **Scheduled Quiz:** *consisting of objective type questions of 15 minutes duration.*
- **Group Projects:** *8 groups to be formed. Each group to present the assigned case study in class (20 min presentation + 10 min Q&A)*
- **End-term Exam:** *format to be decided in consultation with instructor of Part-I of the course.*

Course Description

Unit 4 (3 hours): ICT as harbingers of social change

- MDG/SDG initiatives of UN, ICT Indicators, Digital India program.
- Contours of new channels of information, Social networking.
- Rise of social media and online content generation.
- How these digital artefacts democratize the process of owning, using and networking with new media technologies.

Unit 5 (4 hours): Case studies on ICT

- Implications of new and digital media in everyday life.
- Addressing Governance issues.
- Connecting the unconnected.

Unit 6 (3 hours): Digital Media as a Developmental Tool

- Social media as a tool to empower and communicate with communities.
- Utilization of new media tools for leisure and social networking.
- Impact of ICT in evolution of a digital society as a part of socio-economic development.
- Impact of ICT on Bottom of the Pyramid.

Session Plan

Session 1: ICT for social change, MDGs, SDGs, Case study assignment
Session 2: ICT indicators, e-Government, Digital India
Session 3:, Social Networking, social media, online content generation
Presentation of Case study by Group 1
Session 4: Democratization of networking with ICT
Presentation of Case-Study by Group 2
Session 5: Implications of ICT in everyday life, MMPs
Presentation of Case-Study by Group 3
Session 6: Implications of ICT on Governance
Presentation of Case-Study by Group 4
Session 7: ICT for connecting the unconnected.
Presentation of Case-Study by Group 5
Session 8: ICT as an empowerment tool
Presentation of Case-Study by Group 6
Session 9: ICT for socio-economic development
Presentation of Case-Study by Group 7
Session 10: Discussions
Presentation of Case-Study by Group 8

Seminar Topic Allocation

S. No.	Seminar Topic	Group No.
1	*Case Study on Direct Benefit Transfer Scheme of India*	
2	*Digital India: Revolution in digital payments in India.*	
3	*Role of ICT in development of Smart Cities*	
4	*FAST TAG on highways*	
5	*ICT for disaster management.*	
6	*Universal Service Fund Obligation for ICT4D*	
7	*Use cases of 'Internet of Things' for Sustainable Development Goals*	
8	*Crowdsourcing for development using ICT*	

Group Project Outline

- *Why was this project developed*
- *What are the objectives of the project?*
- *What is the project context? (policy environment, economic and social conditions, etc.)*
- *What are the strengths (e.g. resources and capacities available) and weaknesses (e.g. vulnerable conditions) of the project?*
- *What are the external opportunities and threats that affect the project?*
- *What is the expected results of the project?*
- *What are the achievements and impacts?*
- *What are the methodologies and tools used in the project?*
- *How was ICT applied in the project?*
- *How was the project managed? By whom?*
- *What were the good practices, lessons learned and recommendations for future actions?*
- *Source and References: Useful references for further information*

What is Development?

- *The term means different things to different people, based on economic, geographic, political, social, cultural, religious and ethnic contexts.*
- *Current development perspectives originated from*
  - *post World War II era when the term "development" was used as part of a rationale for post-war reconstruction in Europe and the "underdeveloped parts" of the world.*
  - *immediate post-colonial experience where most of the newly independent countries of Asia and Africa were, according to Western values, left far behind in terms of progress.*
- *"Development" as a conceptual framework for a number of individual, institutional, national and international changes is essentially a post World War II phenomenon.*
- *Became synonymous with growth, modernization, change, democracy, and many similar Western values, and in the beginning was* **focused largely on economic development.**
- *Measured by economic indicators e.g. Gross National Product (GNP), GNP per capita, Gross Domestic Product (GDP) and GDP per capita and per capita income*

Criticism of economic theories

- *Improved economic growth did not necessarily lead to the eradication of poverty; instead it sometimes led to greater inequalities in the distribution of income.*
- *Empirical evidence continued to point to the failure of growth theories to alleviate poverty and reduce hunger. Instead, there were often high growth rates alongside large scale poverty and deprivation, inequalities, social disorder and environmental degradation.*
- *The* **dissatisfaction** *of countries with existing theories of development came from a realization that these theories did not really address or translate into improving the quality of people's lives.*
- *As a new paradigm for development, it was argued that in* **individual freedom** *lies the capacity for political participation, economic development and social progress.*
- *The goal of all development is the* **enabling of freedom** *to make a choice, and empowering of an individual to make the choices that determine his/her quality of life.*
- *New indicators emerged on social development and freedoms, and giving greater importance to* **people-centric approaches** *to development*.

Developing vs. Developed countries

- *No standard definition for classification of a country as developed or developing- can be on basis of GDP per capita, level of industrialization, general standard of living, amount of technological infrastructure etc.*
- *According to the UN, in 2020, 35 countries were considered "developed." All developed countries were located in either North America, Europe, or Developed Asia and Pacific.*
  - *Their birth and death rates are stable*
  - *They have more women working*
  - *They use a disproportionate amount of the world's resources.*
  - *They have higher levels of debt.*
- *According to the UN, in 2020, 126 countries were considered "developing." All developing countries were located in either Africa, Asia, or Latin America and the Caribbean.*
- *Development status determines which countries have a right to receive development aid under the rules of a multilateral or bilateral agency, such as the World Trade Organization (WTO)*

Source: https://www.investopedia.com/updates/top-developing-countries/

The New Approach towards development

- *Pioneered by Mahbub ul Haq and Amartya Sen, the human development approach was introduced by the United Nations Development Programme (UNDP) in 1990 and supported later by other international organizations.*
- *Stresses human well-being as an end for any process of economic and social development.*
- *It does so by overturning the view that focuses on material progress as the sole end. Instead, the new approach focuses on the well-being of individuals as the ultimate objective.*
- *Human Development Report (HDR) developed by UNDP is an important document through which the debate on human development is understood. The HDR includes the Human Development Index (HDI) consisting of indicators of education, health and income to ensure adequate living standards.*

Human Development Index

- *The HDI consists of three indices: life expectancy, education/literacy and standard of living to compare the level of development of a particular group of people (as in, developed, developing, underdeveloped) based on the availability of options.*
- *The logic is that the more developed a group of people are, the more options are available to them.*
- *Comparing HDI over a period of 20-30 years show that there have been improvements in all dimensions of human development in life expectancy, literacy and income levels.*
- *However, the gap between developed countries and developing countries remains high.*
- *Most developed countries have HDIs of 0.8 or higher*
- *Despite having the world's second-largest economy, China is still not classified as a developed country*
  - *lowest GDPs per capita*
  - *dependence on agriculture, (7.7% of China's overall GDP)*
  - *average life expectancy was 77 years, and its infant mortality rate was 11 per 1,000 live births.*

ICT for Development

Session 1 & 2

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Recap of Session 1,2

- *Course objectives*
- *Course outline*
- *Project work*
- *What is Development?*
- *Economic theories and People-Centric theory of development*
- *Criticism of economic theories*
- *Developing vs. Developed countries*
- *Human Development Index*

Group Project Outline

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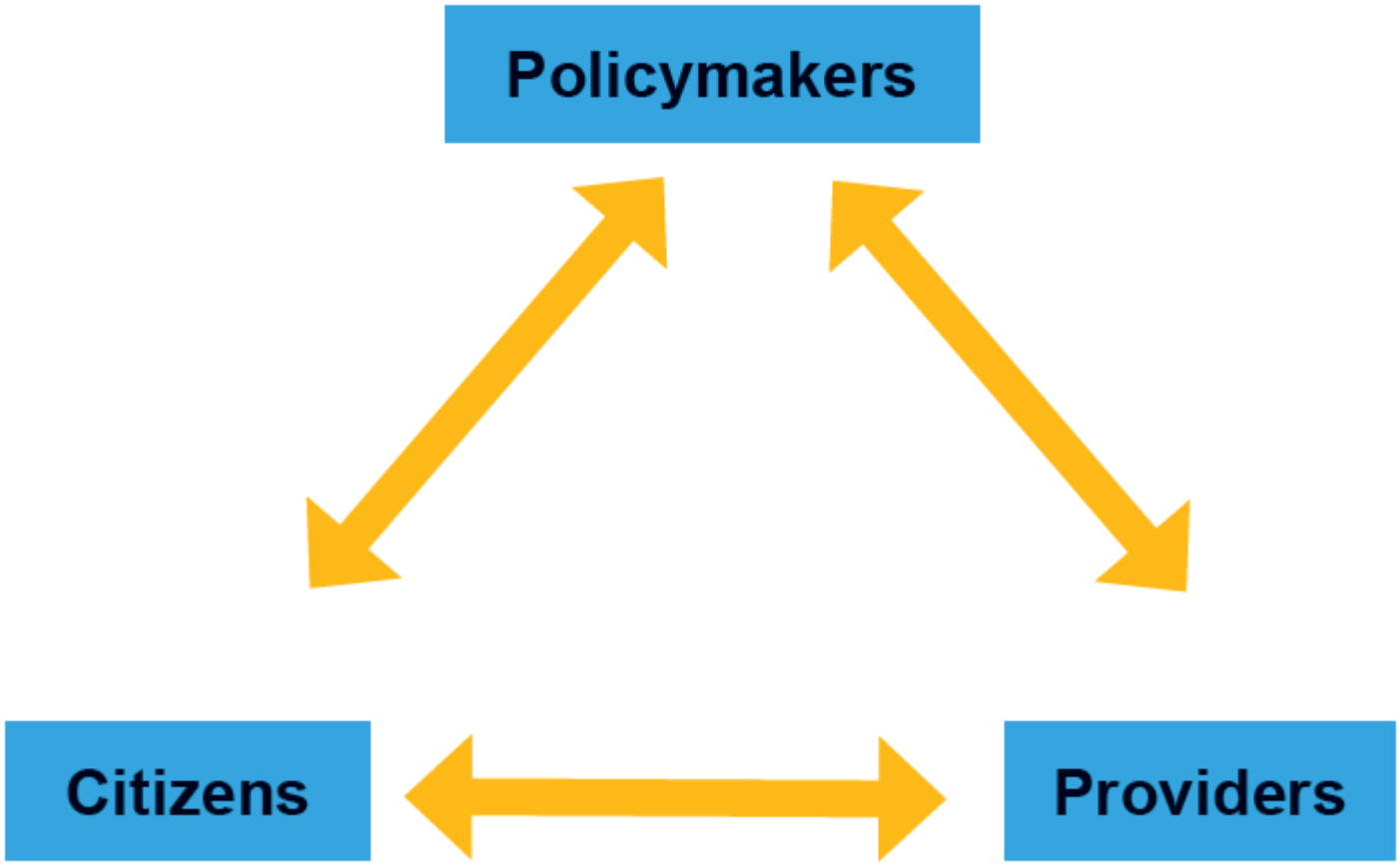
Role of ICT in Development

- *ICTs have provided citizens with* **new opportunities and resources**
  - *e-Government extends the reach of public services*
  - *social media provides voices to those social groups most often marginalized*
  - *e-Health brings medical practitioners to rural communities*
  - *online learning provides access to education for those outside traditional hubs of learning*
- *Play an important role in fostering improved connectivity as well as socio-economic development throughout the world.*
- **Challenges: Digital Divide**
  - *Considerable inequalities in terms of ICT infrastructure, connectivity and know-how still exist & inhibit the potential benefits of ICTs from being adequately leveraged.*
  - *Access to ICTs is not uniform across regions, countries and communities, with many significant discrepancies existing between neighboring regions and the social groups within them.*

Stakeholders in ICT for Development



Role of ICT in Development

Sector	Applications
Agriculture and Livelihoods	• Telecentres • Information on pricing and weather for farmers • Sustainable livelihoods • Income generation
Education	• Distance education • Teacher training • ICT human capacity building
Health	• Telemedicine • Digital publication and online resources • Continuing medical education
Business and Economy	• e-Banking • International trade • Globalization
Media, Culture and Tourism	• Digital newsrooms • Culture and culture products • Archival technology • New media formats

Role of ICT in Development

Sector	Applications
Environment	• GIS mapping • Networking of activists • Environmental protection • Climate change
Governance	• Online citizen services • Social accountability • NGO development
Urban Development	• Urban planning • Service delivery • Urban telecentres
Rural Development	• Rural community networks • Rural tourism • Health care

Millennium Development Goals

- *Millennium Development Goals* **(MDGs)** *were the eight international development goals for the year 2015 that had been established following the Millennium Summit of the* **United Nations** *in 2000.*
- *All 189 United Nations member states at the time and 23 international organizations, committed to help achieve Millennium Development Goals by 2015:*
  - *To eradicate extreme poverty and hunger*
  - *To achieve universal primary education*
  - *To promote gender equality and empower women*
  - *To reduce child mortality*
  - *To improve maternal health*
  - *To combat HIV/AIDS, malaria, and other diseases*
  - *To ensure environmental sustainability*
  - *To develop a global partnership for development*

Sustainable Development Goals

- *At the United Nations Sustainable Development Summit on 25/09/15, world leaders adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030.*

Succeeding the MDGs, the SDGs are the new universal goals, adopted by 193 countries including India.

SDGs comprise 17 Goals and 169 targets:

Implementation Span: 2016-2030.

Several SDG targets are to be achieved before 2030;

Some of them even by 2020.

SDGs integrate economic, social and environmental dimensions;

Goals & targets interconnected as never before.


SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

SDG Categorization

Social ▪ *SDG 1 - No Poverty* ▪ *SDG 2 - Zero Hunger* ▪ *SDG 3 - Good Health and Well-Being* ▪ *SDG 4 - Quality Education* ▪ *SDG 5 - Gender Equality* ▪ *SDG 6 - Clean Water and Sanitation*	**Environmental** ▪ *SDG 12-Sustainable Consumption and Production* ▪ *SDG 13- Climate Action* ▪ *SDG 14- Life Below Water* ▪ *SDG 15- Life on Land*
Economic ▪ *SDG 7- Affordable and Clean Energy* ▪ *SDG 8- Decent Work and Economic Growth* ▪ *SDG 9- Industry, Innovation and Infrastructure* ▪ *SDG 10 – Reduced Inequalities* ▪ *SDG 11- Sustainable Cities and Communities*	**Fostering Peace and Partnership** ▪ *SDG16- Peace, Justice and Strong Institutions* ▪ *SDG 17- Partnerships for the Goals*

Sustainable Development Goals

Goal 1	**End poverty** *in all its forms everywhere*	**Goal 10**	*Reduce inequality within and among countries*
Goal 2	**End hunger**, *achieve food security and improved nutrition and promote sustainable agriculture*	**Goal 11**	*Make cities and human settlements inclusive, safe, resilient and sustainable*
Goal 3	*Ensure* **healthy lives** *and promote well-being for all at all ages*	**Goal 12**	*Ensure sustainable consumption and production patterns*
Goal 4	*Ensure inclusive and equitable* **quality education** *and promote lifelong learning opportunities for all*	**Goal 13**	*Take urgent action to combat climate change and its impacts*
Goal 5	*Achieve* **gender equality** *and empower all women and girls*	**Goal 14**	*Conserve and sustainably use the oceans, seas and marine resources for sustainable development*
Goal 6	*Ensure availability and sustainable management of* **water and sanitation** *for all (6.a, 6.b)*	**Goal 15**	*Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss*
Goal 7	*Ensure access to affordable, reliable, sustainable and modern energy for all*	**Goal 16**	*Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels*
Goal 8	*Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all*	**Goal 17**	*Strengthen the means of implementation and revitalize the global partnership for sustainable development*
Goal 9	*Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation*		

MDG & SDG Comparison

MDGs to SDGs: Strategic Shifts

MDG	SDG
Traditional assistance	*Traditional assistance + Universal goals*
Limited goals	*More comprehensive*
Top-down process	*Inclusive goal setting*
Traditional statistics	*Traditional + Data revolution*
Hunger and poverty together	*Distinction*
Quantity Education	*Quality Education*
Funding: Focus on ODA	*Broader set of financial sources*

MDGs to SDGs: Strategic Shifts

- **Conclusiveness –** *Focus on the Finish line: Zero Poverty, Hunger, preventable Child Deaths, Gender Discrimination & Violence, etc.*
- **Comprehensiveness -** *The SDGs are more comprehensive with fuller array of targets, better focus on causality and strategic issues.*
- **Universality** – *Applicable to all countries, with greater emphasis on the responsibility of the developed countries,*
- **Inclusiveness –** *Clear focus on 'leaving no one behind and reaching the furthest behind first.*
- **Hunger distinct from Poverty –** *deeper analysis of structural and social factors separates poverty from food and nutrition security.*
- **Peace Building –** *Addressing conflict resolution and peace building as enablers of growth and development*
- **Resourcing –**
  - *Focus on sustainable economic development in a country to meet financial resource requirement for achieving SDGs;*
  - *Holistic approach to international financing of SDGs – Stronger focus on ODA, international resource flows, technology transfer and trade*
- **Measurability –** *Clear emphasis on monitoring, evaluation and accountability, and the metrics - high-quality, up-to-date and reliable data*

Indicators of SDGs

S. No.	SDGs	No. of Indicators	Focus Areas of Indicators
1	*No Poverty*	*5*	•*population below poverty line & poverty gap ratio,* •*employment under MGNREGA,* •*Access to safe drinking water & Sanitation*
2	*Zero Hunger*	*5*	•*Access to food grains at subsidized prices* •*Stunting & wasting in under-5 children* •*Agricultural productivity & Gross Value Added per worker*
3	*Good Health and Well-Being*	*9*	•*Maternal Mortality Ratio; Neo-natal & Under-5 Mortality Rates* •*Immunisation of under-2 children* •*Incidence of HIV/AIDS, malaria & TB* •*Medical personnel per 10,000 people*
4	*Quality Education*	*4*	•*Net Enrolment Ratio & Out of School Ratio* •*Enrolment Ratio of Children with disabilities* •*Pupil Teacher Ratio*

Indicators of SDGs

	SDGs	No. of Indicators	Focus Areas of Indicators
5	Gender Equality	3	• Crime against women • Women's representation in Parliament, State Assembly & local bodies • Use of family planning methods
6	Clean Water and Sanitation	2	• Access to potable water & sanitary toilet (Urban/Rural)
7	Affordable and Clean Energy	3	• Access to electricity & clean cooking fuel • Share of renewable energy in total energy
8	Decent Work and Economic Growth	7	• Annual Growth Rate of GDP (PPP Per Capita) • Annual Growth Rate of Manufacturing, Agriculture & MSME sector • Unemployment & Work Force Participation Rate (M/F) • Access to bank accounts & banking outlets

Indicators of SDGs

	SDGs	No. of Indicators	Focus Areas of Indicators
9	Industry, Innovation and Infrastructure	6	• % of rural population living within 2 km of an all-season road • Share of manufacturing sector employment in total employment • CO_2 emission per unit of value added • R&D expenditure as % of GDP & No. of patents/IPRs filed • Access to mobile phones.
10	Reduced Inequalities	2	• Income growth among the bottom 40% of People • Representation of vulnerable groups in elected bodies
11	Sustainable Cities and Communities	3	• Slums/EWS settlements covered by formal housing • Proportion of cities with efficient public transport & mobility • Annual Mean levels of PM 2.5 & PM 10 in cities
12	Sustainable Consumption and Production	2	• Post harvest storage & distribution losses • Adoption of Waste Management measures

Indicators of SDGs

	SDGs	No. of Indicators	Focus Areas of Indicators
13	Climate Action	2	• Number of states taking climate adaptive measures • Achievement of Nationally Determined Contribution (NDC) Goals
14	Life Below Water	2	• No of sewage treatment plants and toilets constructed • % Change in area under mangroves
15	Life on Land	4	• Proportion of forest area to total land area • Total tree cover outside forest area • Increase in Tree/ Forest cover in degraded areas • % Increase in Net Sown Area
16	Peace, Justice and Strong Institutions	4	• % of people subjected to violence • No. of human trafficking victims per 1,00,000 people • No. of government online services provided • Population covered under Aadhaar

Role of ICT in SDGs

ICTs are catalytic drivers to enable the achievement of all the SDGs

" The spread of information and communication technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies, as does scientific and technological innovation across areas as diverse as medicine and energy".

2030 Agenda for Sustainable Development (Paragraph 15)

References to ICT in SDGs

- *While none of the SDGs is specifically about ICTs, several targets make references to ICTs and technology.*

- *ITU has made a concerted effort to highlight the role* **that ICTs will play in achieving the SDGs**. *It is actively participating in the discussions on the indicators that will be used to track the SDGs.*

- *Link to UN Global Indicators for SDGs*

https://unstats.un.org/sdgs/indicators/indicators-list/

Click here for Excel file with all SDG targets

Role of ICT in SDGs

- *The February 2016 version of the IAEG-SDGs(Inter-agency and Expert Group on SDGs) report includes the following* **7 ICT indicators covering 6 targets** *under Goals 4, 5, 9, and 17. (The organization indicated in brackets tracks the indicator at the international level).*

Proposed SDG indicators related to ICTs

- **Target 4a:** *Proportion of schools with access to computers & Internet for pedagogical purposes (UIS)*
- **Target 4.4:** *Proportion of youth/adults with ICT skills, by type of skills (ITU)*
- **Target 5b:** *Proportion of individuals who own a mobile telephone, by sex (ITU)*
- **Target 9c:** *Percentage of the population covered by a mobile network, broken down by technology (ITU)*
- **Target 17.6:** *Fixed Internet broadband subscriptions, broken down by speed (ITU)*
- **Target 17.8:** *Proportion of individuals using the Internet (ITU)*

NITI Aayog's Strategy for SDGs in India

Mapping of National Programs with SDGs

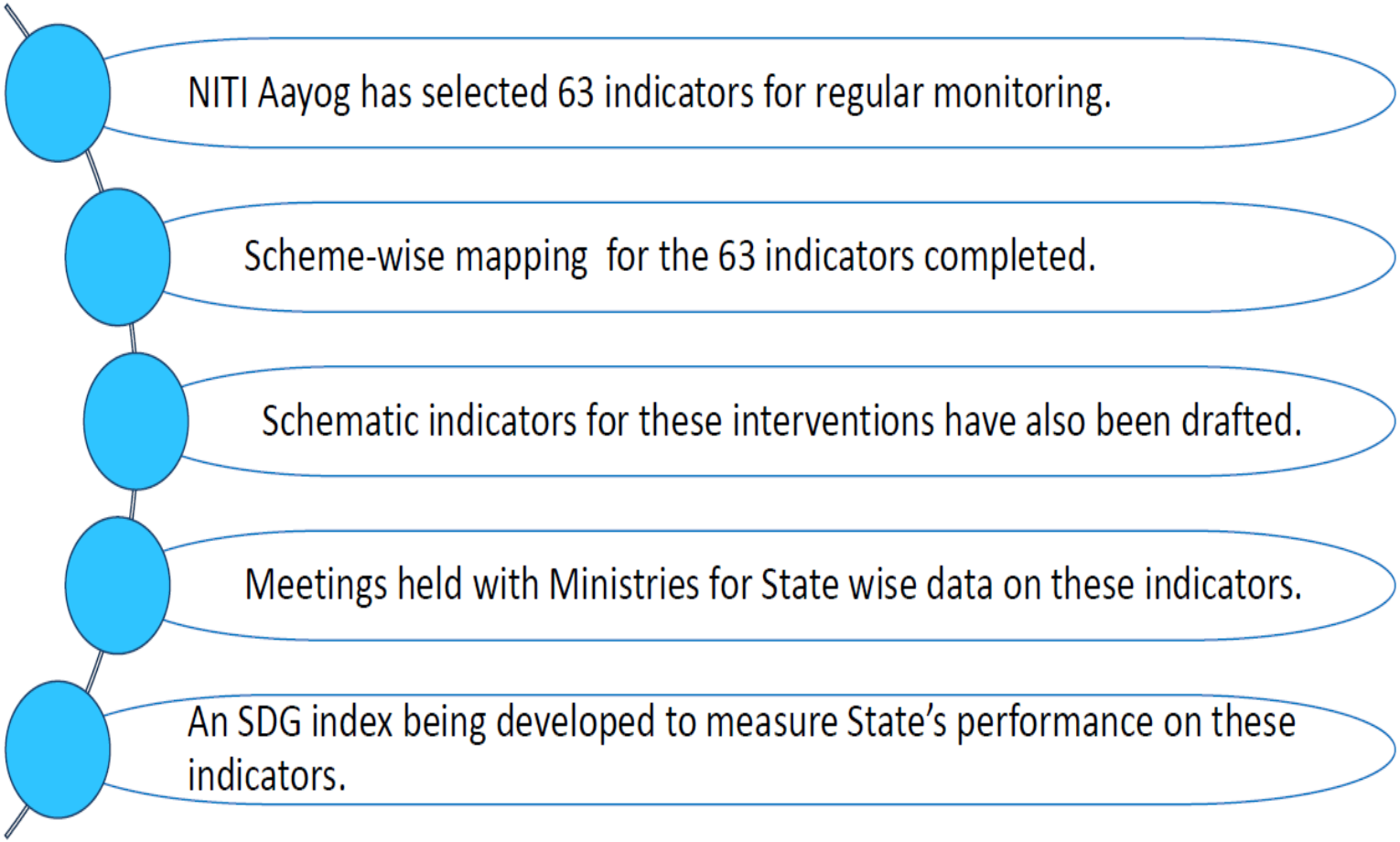
- Mahatma Gandhi National Rural Employment Guarantee Programme
- National Rural & Urban Livelihood Mission
- Pradhan Mantri Jan Dhan Yojana
- Soil Health Cards
- National Food Security Mission
- National Health Mission
- National Education Mission
- Beti Bachao Beti Padhao
- Swachh Bharat Mission
- National Rural Drinking Water Programme
- Pradhan Mantri Aawas Yojana - Rural and Urban
- Pradhan Mantri Gram Sadak Yojana
- Pradhan Mantri Krishi Sinchai Yojana
- Pradhan Mantri Ujjwala Yojana
- National Mission for a Green India

State Schemes/ Programmes

Integration of Programs with SDGs

- NITI Aayog has mapped out SDGs & related targets, and Outcome Indicators on Central Ministries, Centrally Sponsored/Central Sector Schemes & other government initiatives.
- Several States have conducted similar mapping of their departments and schemes/programmes.
- Nodal Ministries at Central level and Nodal departments in some States have been identified.
- Several States have set up SDG Cells or Centres of Excellence for coordinating SDG implementation.
- NITI Aayog has constituted a Task Force with participation by Central Ministries & States for regular review of SDG implementation in the country.

Monitoring Implementation: Priority Indicators



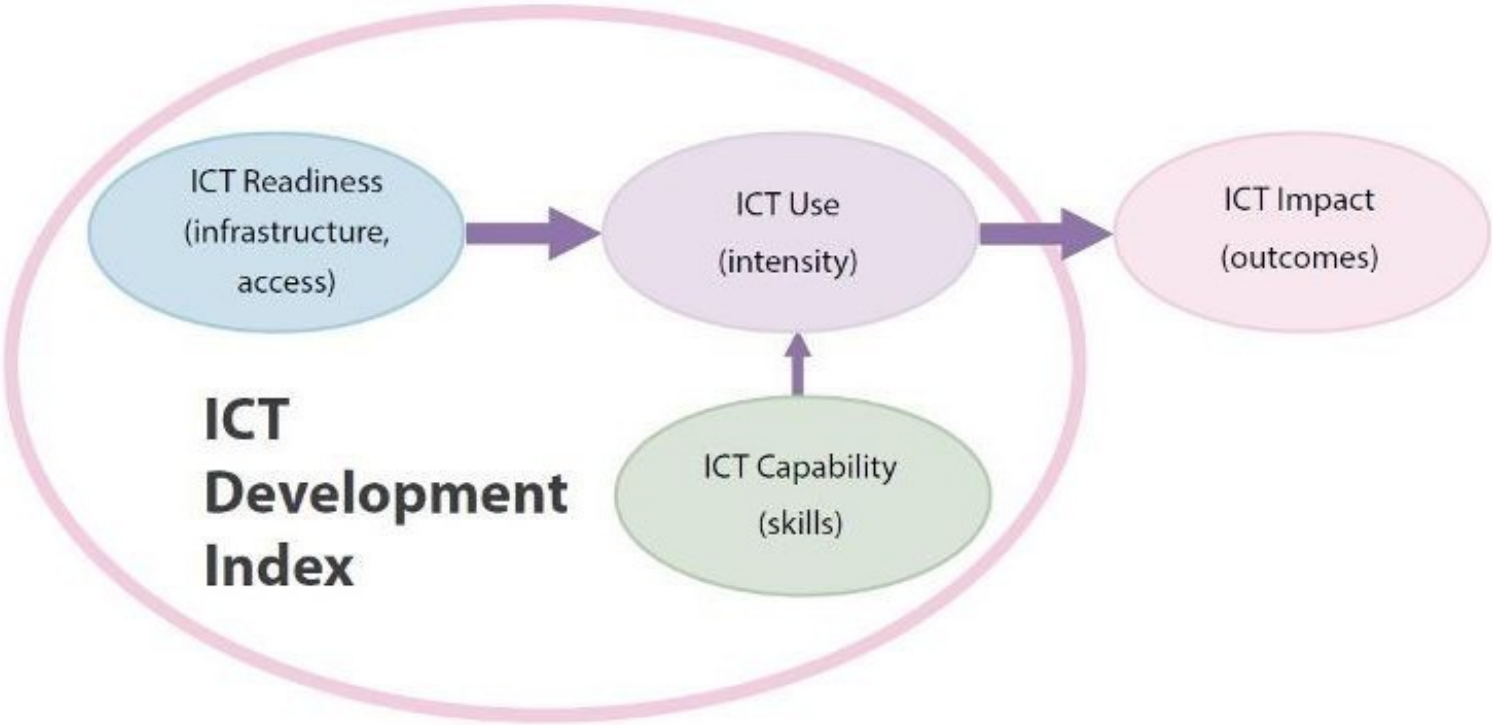
The ICT Development Index (IDI)

Methodology, indicators and definitions

The ICT Development Index (IDI)

- *The IDI is a composite index that combines 14 indicators*
- *Designed to be global and reflect changes taking in place in countries of different levels of development*
- *Was developed by ITU in 2008 in response to member states' request to establish an overall ICT index*
- *Results first reported in the Measuring the Information Society Report (MISR) 2009*

Three stages in the evolution of IDI



IDI

- *ICT Development Index (IDI) is published by International Telecommunication Union (ITU) based on internationally agreed Information and Communication Technology (ICT) indicators.*
- *IDI is a standard tool that governments, operators, development agencies, researchers and others can use to measure the digital divide and compare ICT performance within and across countries.*

IDI Indicators

- *IDI is based on 11 ICT indicators, grouped in 3 clusters: ICT access, ICT use and ICT skills sub indices.*
- *For computation of the final Index, the ICT access and ICT usage sub-indices were each given a 40 per cent weighting, and the skills sub-index 20 per cent weighting.*
- *The final Index value was then computed by summation of the weighted sub-indices.*

IDI Indicators

- **Access sub-index:** *This sub-index captures ICT readiness, and includes five infrastructure and access indicators*
  - *fixed-telephone subscriptions*
  - *mobile-cellular telephone subscriptions*
  - *international Internet bandwidth per Internet user*
  - *households with a computer*
  - *households with Internet access*

IDI Indicators

- **Use sub-index:** *This sub-index captures ICT intensity, and includes three intensity and usage indicators*
  - *individuals using the Internet*
  - *fixed-broadband subscriptions*
  - *mobile-broadband subscriptions*

IDI Indicators

- **Skills sub-index**: *This sub-index seeks to capture capabilities or skills that are important for ICTs. It includes three proxy indicators*
  - *mean years of schooling*
  - *gross secondary enrolment*
  - *gross tertiary enrolment.*
- *As these are proxy indicators, rather than directly measuring ICT-related skills, the skills sub-index is given less weight in the computation of the IDI than the other two sub-indices*

IDI Rankings

- *As per ITU's Measuring the Information Society Report (MISR)-2017, Iceland tops the IDI rankings with an IDI value of 8.98 followed by South Korea, Switzerland and Denmark. India ranks 134 with IDI value at 3.03 among 176 countries.*
- *But seeing the rapidly growing Indian economy, more than 1000 million mobile users, growing size of population and global status in IT/ITes, present ranking at 134 is not fair and needed huge improvement.*
- *NDCP-2018 has the objective to improve the ranking within top 50.*

IDI Rankings

Sl. No	Country	Rank 2017	IDI 2017	Rank 2016	IDI 2016
1.	**South Korea**	**2**	**8.85**	**1**	**8.80**
2.	Japan	10	8.43	11	8.32
3.	Singapore	18	8.05	20	7.85
4.	**China**	**80**	**5.60**	**83**	**5.17**
5.	USA	16	8.18	15	8.13
6.	United Kingdom	5	8.65	5	8.53
7.	Germany	12	8.39	13	8.20
8.	**India**	**134**	**3.03**	**138**	**2.65**

(Data Source : ITU, Measuring the Information Society Report volume1-2017)

Objectives of the IDI

To measure:

- *the level and evolution over time of ICT developments in countries and the experience of those countries relative to other countries;*
- *progress in ICT development in both developed and developing countries;*
- *the digital divide, i.e. differences between countries in terms of their levels of ICT development; and*
- *the development potential of ICTs and the extent to which countries can make use of them to enhance growth and development.*

What is e-Government?

- *OECD (2003): "Use of information and communication technologies, and particularly the Internet, as a tool to achieve better government ."*

- *World Bank: "Use of information technologies (such as Wide Area Networks, the Internet, and mobile computing) by government agencies that have the ability to transform relations with citizens, businesses, and other arms of government".*

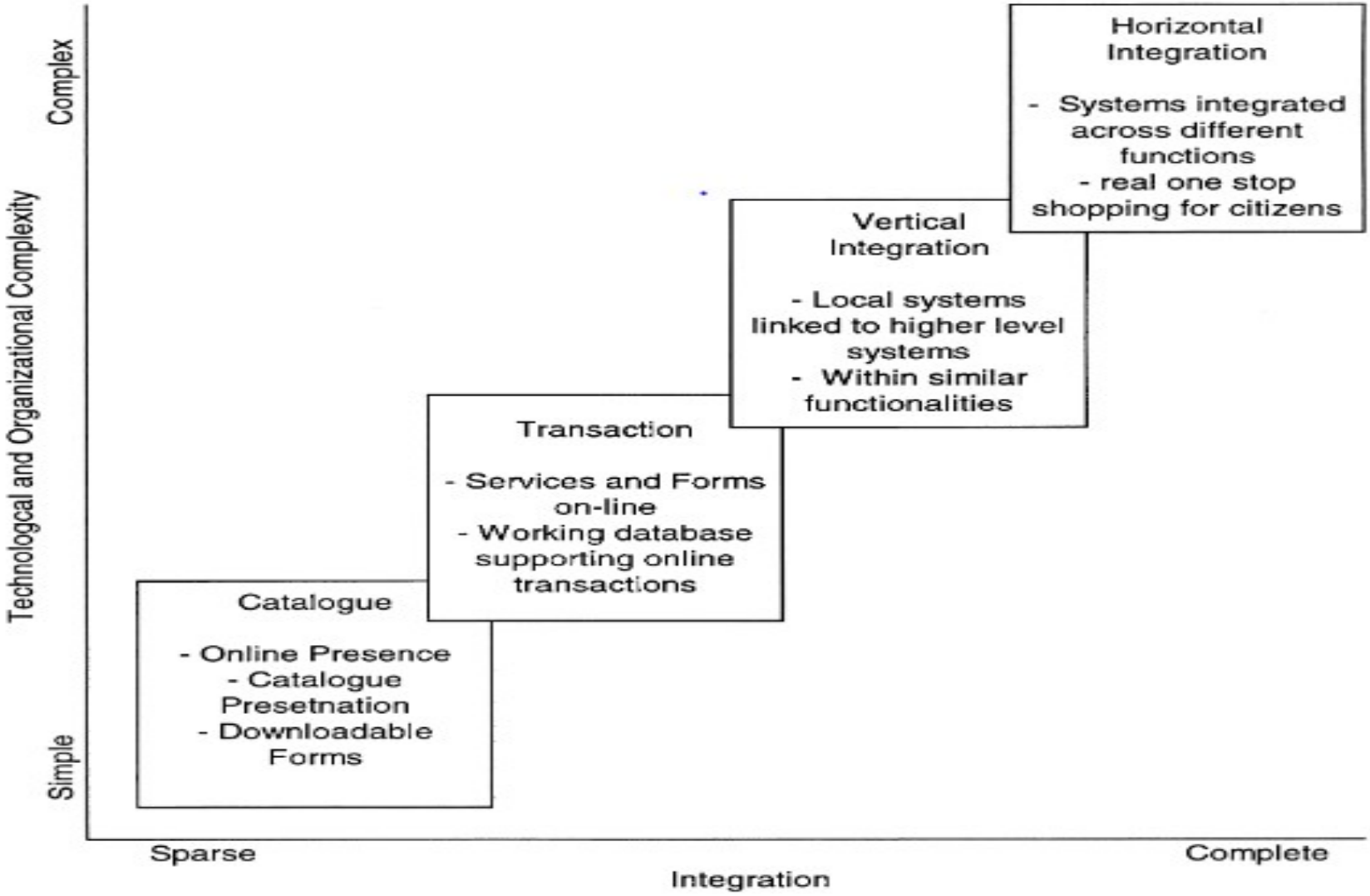
- *United Nations (2014): "The use and application of information technologies in public administration to streamline and integrate workflows and processes, to effectively manage data and information, enhance public service delivery, as well as expand communication channels for engagement and empowerment of people."*

SCOPE OF ACTIVITIES IN e-GOVERNMENT EXPANDING WITH TIME

Why e-Government?

- *Governments all over the world are adopting Information and Communication Technology (ICT) for transforming government administration (Dwivedi et al. 2012; Ebrahim & Irani 2005)*
- *Mode of delivery that has the potential for*
  - **reducing the governance costs** *by minimizing the wastage (Janssen et al. 2008).*
  - *eliminating corruption by* **improving transparency** *(Krishnan et al. 2013).*
  - *promising a better future to the citizens by opening up opportunities for* **reduction in rural poverty and inequality** *(Soriano 2007).*
- *Accordingly,* **huge investments** *are being made in promoting e-Government with the objective of achieving effective delivery of government services.*

Four Stage Maturity Model of e-Government



Source: Layne & Lee (2001)

Challenges

- *Digital infrastructure.*
- *Building IT applications.*
- *Digital literacy.*
- *Government Process Re-engineering.*
- *Interoperability of diverse IT systems.*
- *Change management at user & organizational levels.*
- *Information security.*

Thank you!

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